

Work Order ID 52365

Tuesday, September 22, 2009 3:13:00 PM



Page 1

Item ID: D3121-143

Accept



Setup Start



Revision ID: E

Stop



Item Name: Bracket Assembly

Start Date: 9/23/2009 Start Qty: 8.00



Cust Item ID:

Required Date: 10/9/2009 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan: *BF mF*

Date: 09-9-09

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr	Revision Nbr								
D3121	Rev E								

100



BAND SAW

0.00

0

0

Bandsaw

Jeaspa Bandsaw

Memo

0.00

Cut blanks: (1.250" x 2.000") 4.425" long

SL 09/10/04

110



HAAS CNC VERTICAL MACHINING #1

0.00

0

0

HAAS 1

HAAS CNC vertical machine #1

Memo

0.00

1-Machine D3121-113 as per Folio FA330 and Dwg D3121 Identify as
D3121-113 2-Deburr 3-Scribe batch number*MF
09/10/04*

120



QC2- Inspect parts off machine FAI/FAIB

0.00

0

0

QC

Quality Control

Memo

0.00

*MF
09/10/04*

Work Order ID 52365

Page 2

Tuesday, September 22, 2009 3:13:00 PM

Item ID: D3121-143

Accept



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Stop



Item Name: Bracket Assembly

Start Date: 9/23/2009 Start Qty: 8.00



Cust Item ID:

Required Date: 10/9/2009 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

2009/10/07

8

0

QC

Memo

0.00

Quality Control

140

Small Fab

0.00

Small Fab

Memo

0.00

Small Fab

Assemble D3121-143 as per Dwg D3121.

150

QC5- Inspect part completeness to step on W/O

0.00

2009/10/13

Quality Control

Work Order ID 52365

Page 3

Tuesday, September 22, 2009 3:13:00 PM

Item ID: D3121-143

Accept



Setup Start



Revision ID: E

Stop



Item Name: Bracket Assembly

Start Date: 9/23/2009 Start Qty: 8.00



Cust Item ID:

Required Date: 10/9/2009 Req'd Qty: 8.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Identify as per dwg & Stock Location: 235A

0.00



Packaging

Memo

0.00

Packaging

10/10/13 (8)

170

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

09/10/14 HJ
PL 09-10-14

Picklist Print

Page 1

Tuesday, September 22, 2009 3:13:00 PM

Work Order ID: 52365



Parent Item: D3121-143RevE



Parent Item Name: Bracket Assembly

Start Date: 9/23/2009

Required Date: 10/9/2009

Comments:

Start Qty: 8.00

Required Qty: 8.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M6061T6B0:250X01-25 0		Purchased		No			f	80.3700	1.3600			



6061-T6 Bar-.250 X 1.25

M17-4

1.25" x 2.00" Batch: 111787

Mon 10/05

SL 09/16/05

<u>Warehouse</u>	<u>Loc Oty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
MAT	80.37	
109058	20	
109140	40	
10956	20.37	

111787

D3121-241

B 46169 (4X)
BS2717 (12X)

EP 09/10/13

D3121-21

B50096 (12X)
B52518 (4X)

EP 09/10/13

DART AEROSPACE LTD	Work Order:	52365
Description: Bracket	Part Number:	D3121-113
Inspection Dwg: D3121	Rev: E	Page 2 of 2

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Measured by:	<u>mgf</u>	Audited by:	<u>cmj</u>	Prototype Approval:	N/A
Date:	09/10/06	Date:	09/10/07	Date:	N/A

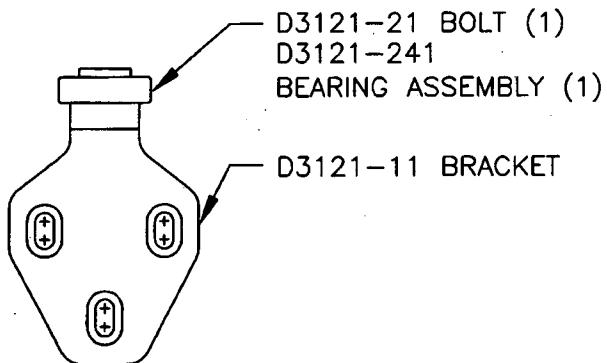
Rev	Date	Change	Revised by	Approved
A	03.12.08	New Issue P/O D3121-143	KJ/RF	
B	04.05.05	Dimensions changed/re-arranged per Dwg revision	KJ/JLM	
C	06.06.14	Dwg Rev. updated	KJ/JLM	
D	08.01.16	Dimensions updated per Dwg Rev. E	KJ/EC/DD	MM

DART

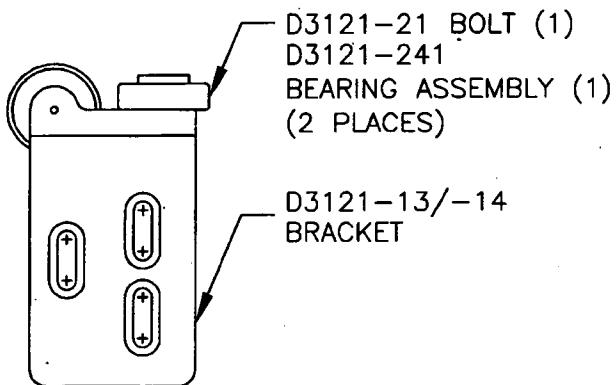
SHC
REF.
ENC
SUBJECT TO AMENDMENT
UNCONTROLLED
WITHOUT NOTICE
WORK ORDER
365
NO

RELEASED
07.11.07

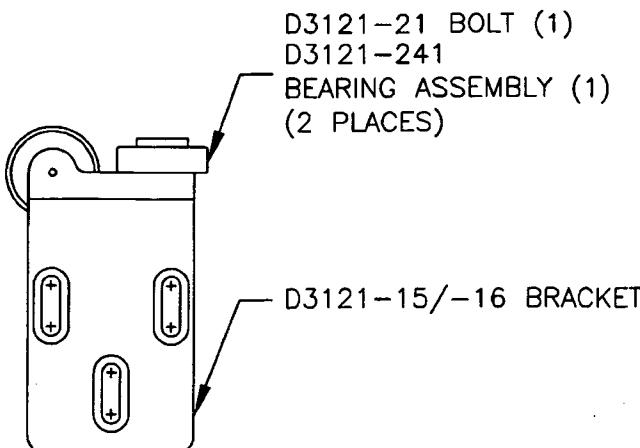
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CHECKED	APPROVED	DRAWING NO.	REV. E
		D3121	SHEET 1 OF 10
DATE	TITLE		SCALE
07.11.07	BRACKET ASSEMBLY		1:2
A	02.04.15	NEW ISSUE	
B	03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146	
C	04.02.17	ADD CLEARANCE; USE -241 BEARING	
D	06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000	
E	07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)	

**D3121-041 BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-33)

**D3121-043 (SHOWN) / D3121-044 (OPPOSITE)
BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-37/-38)

**D3121-045 (SHOWN) / D3121-046 (OPPOSITE)
BRACKET ASSEMBLY**

(REPLACES PREMIER P/N B30-23000-35/-36)

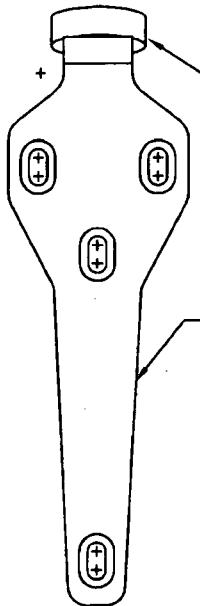
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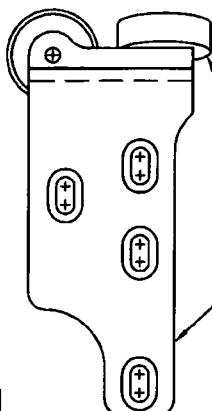
DART

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CHECKED <i>4</i>	APPROVED <i>4</i>	DRAWING NO. D3121	REV. E SHEET 2 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:2

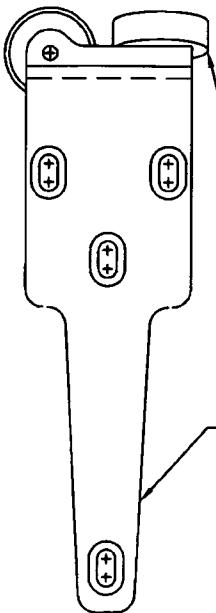


D3121-141 BRACKET ASSEMBLY
(REPLACES PREMIER P/N B30-23001-01)

RELEASED
07.11.07



**D3121-143 (SHOWN) / D3121-144 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-03/-04)



**D3121-145 (SHOWN) / D3121-146 (OPPOSITE)
BRACKET ASSEMBLY**
(REPLACES PREMIER P/N B30-23000-05/-06)

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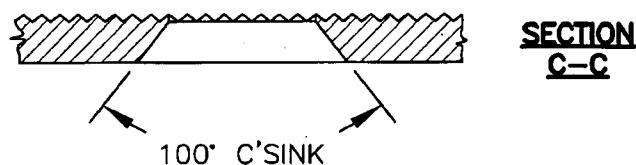
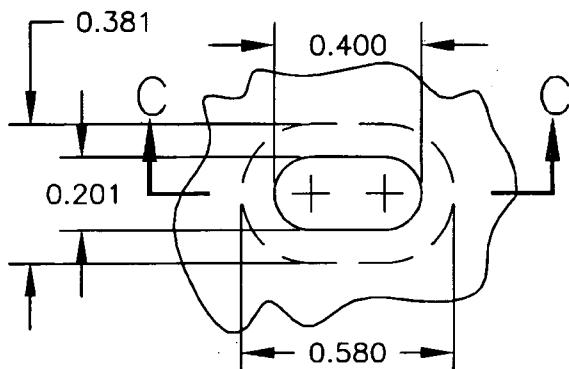
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		D3121	SHEET 3 OF 10
DATE	TITLE	SCALE	
07.11.07	BRACKET ASSEMBLY	1:1	

DETAIL A:
SLOT DETAIL

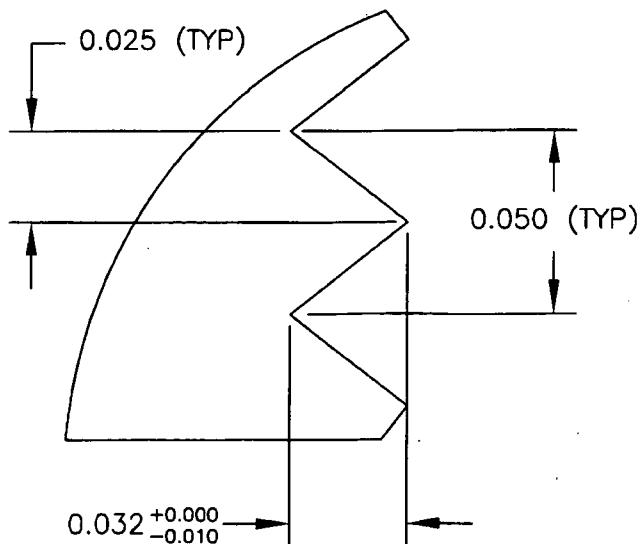
SCALE 2:1
VIEW ROTATED



**SECTION
C-C**

RELEASED
07.11.07

DETAIL B:
RIDGE DETAIL
PARTIAL SECTION
SCALE 1:20



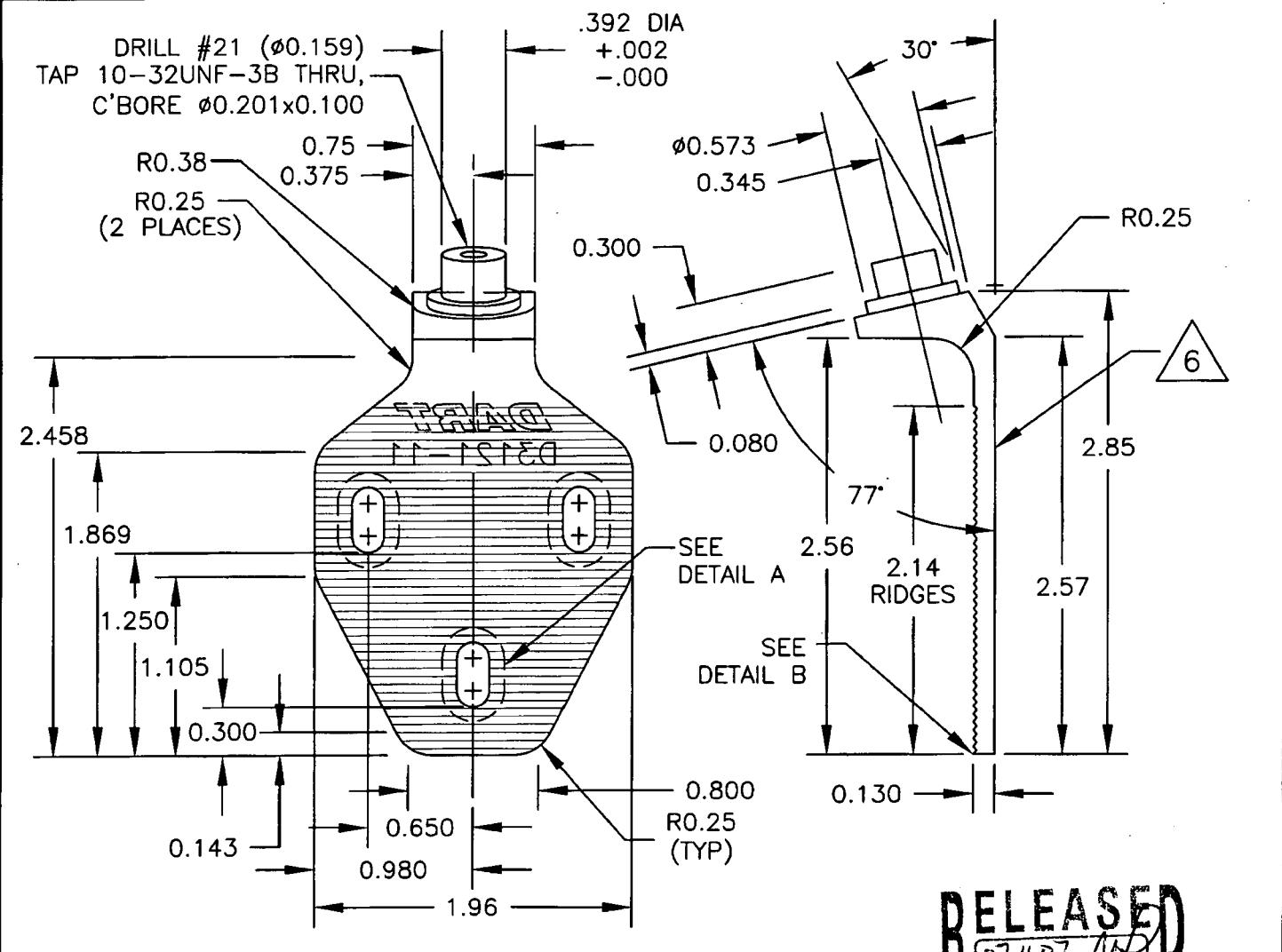
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CHECKED <i>AA</i>	APPROVED <i>AA</i>	DRAWING NO. D3121	REV. E SHEET 4 OF 10
DATE 07.11.07		TITLE BRACKET ASSEMBLY	SCALE 1:1

**D3121-11 BRACKET**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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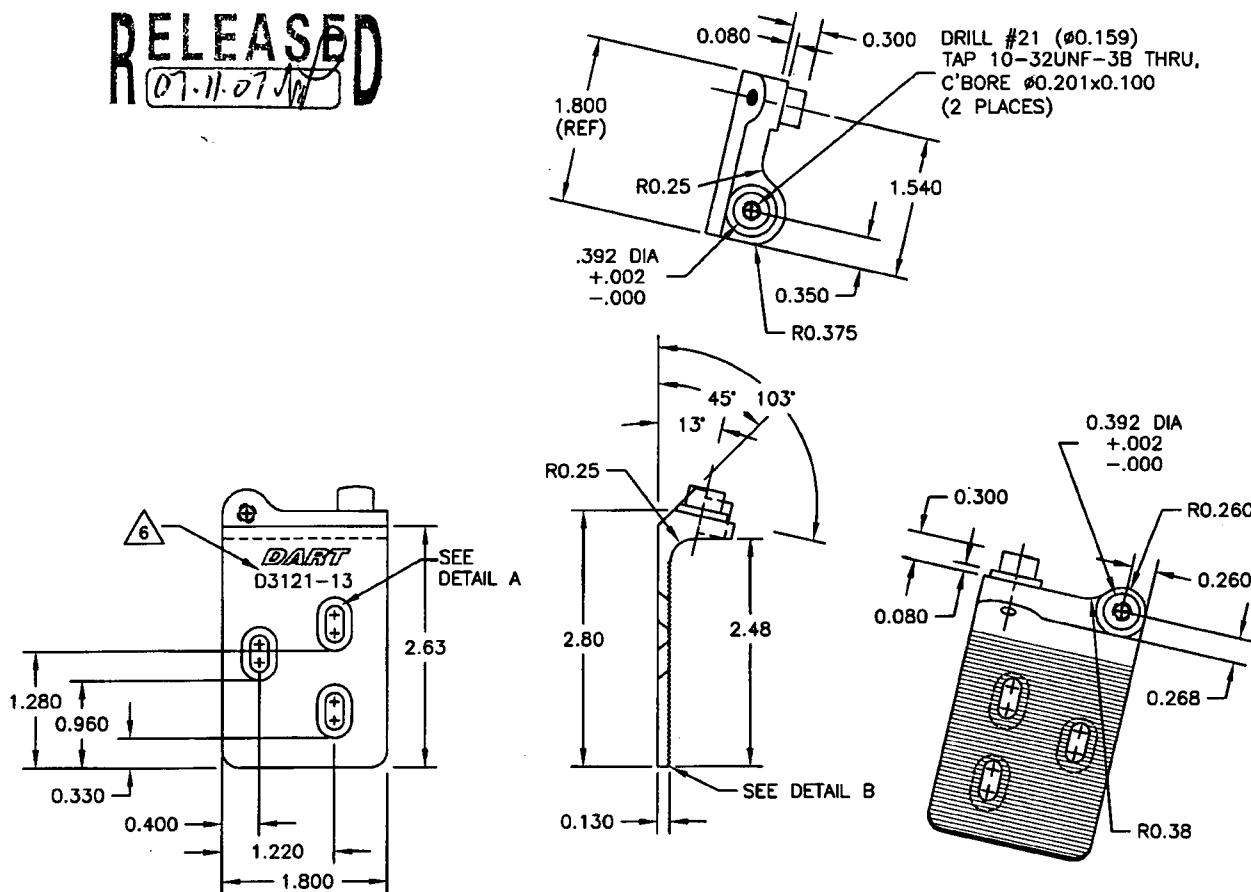
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CHECKED	APPROVED	DRAWING NO. D3121
DATE		REV. E SHEET 5 OF 10 TITLE SCALE 1:2

RELEASED
07.11.07



D3121-13 BRACKET (SHOWN)

D3121-14 BRACKET (OPPOSITE)

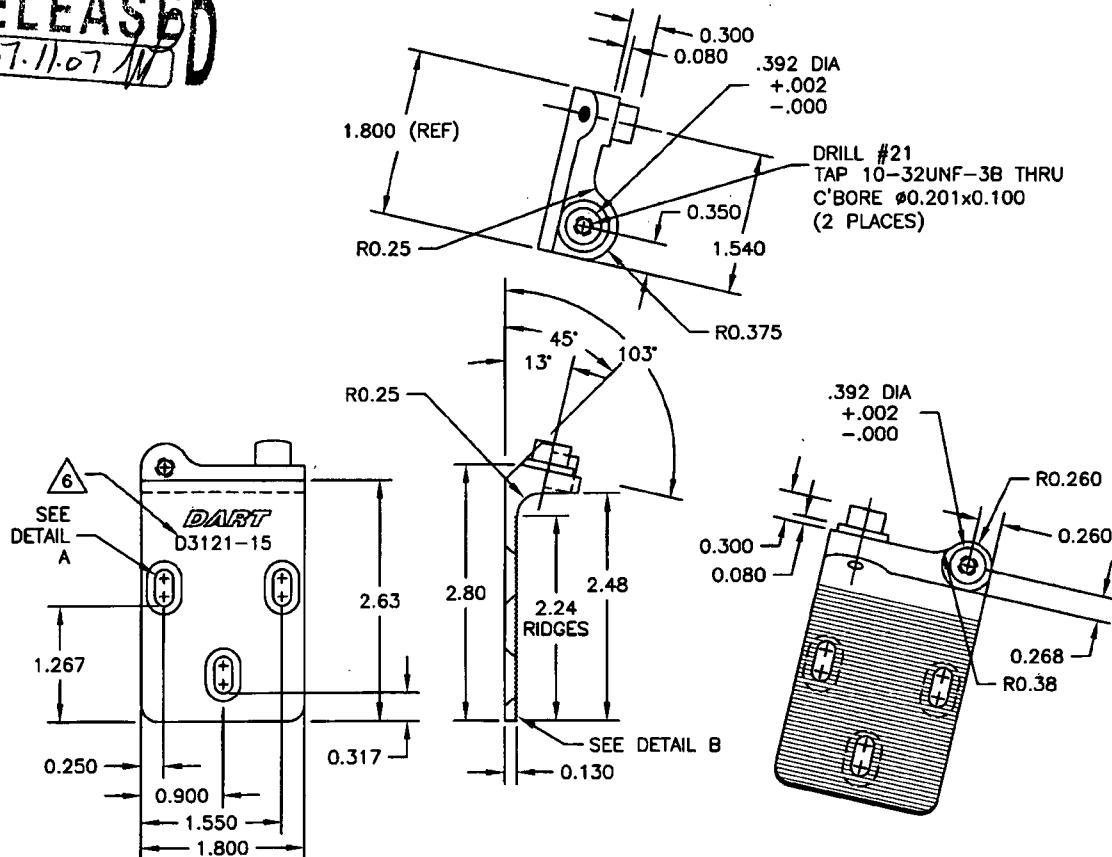
- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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CHECKED	APPROVED	DRAWING NO. D3121
DATE		REV. E SHEET 6 OF 10 TITLE SCALE 1:2 BRACKET ASSEMBLY

RELEASED
07.11.07



D3121-15 BRACKET (SHOWN)

D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

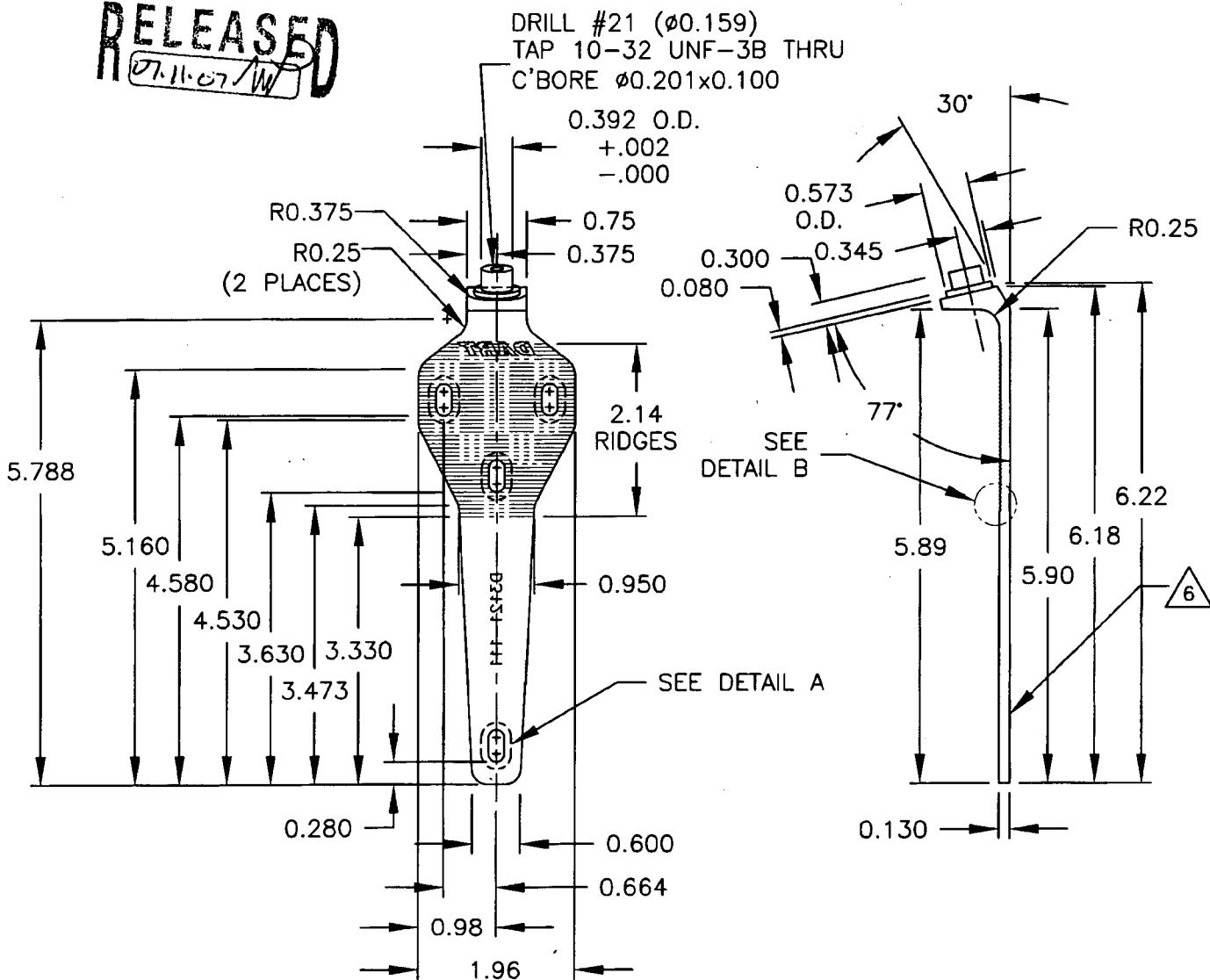
52363

PART

DESIGN <i>4</i>	DRAWN BY <i>CE</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>4</i>	APPROVED <i>4</i>	DRAWING NO. D3121	REV. E	SHEET 7 OF 10
DATE 07.11.07	TITLE BRACKET ASSEMBLY		SCALE 1:2	

RELEASED
07.11.07 / W

07.11.07 AM



D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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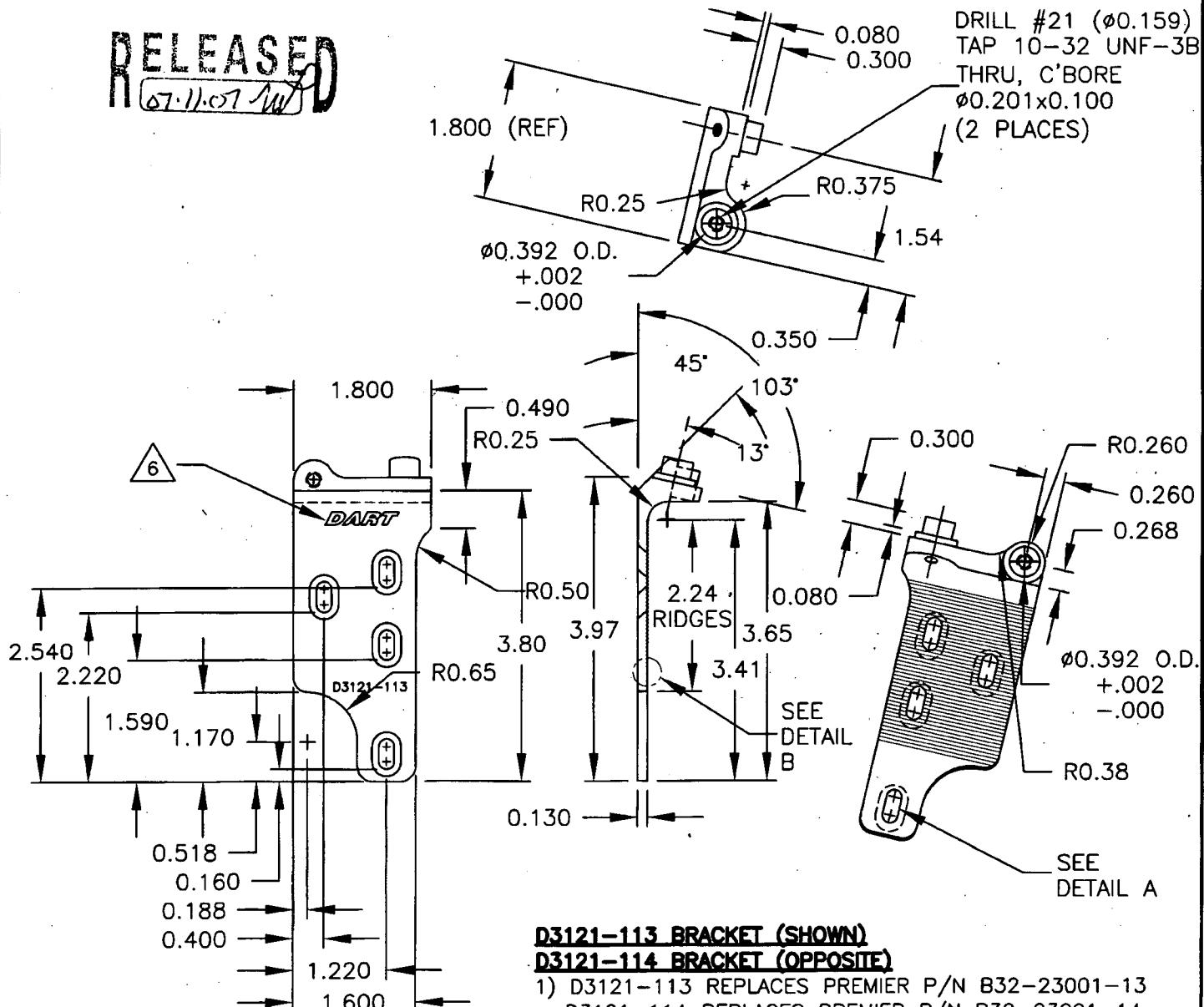
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CHECKED	APPROVED	DRAWING NO.	REV. E
		D3121	SHEET 8 OF 10
DATE	TITLE	SCALE	
07.11.07	BRACKET ASSEMBLY	1:2	

RELEASED
07.11.07 WJ



**D3121-113 BRACKET (SHOWN)
D3121-114 BRACKET (OPPOSITE)**

- 1) D3121-113 REPLACES PREMIER P/N B32-23001-13
D3121-114 REPLACES PREMIER P/N B32-23001-14
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE STRENGTH = 150 ksi
MIN YIELD TENSILE STRENGTH = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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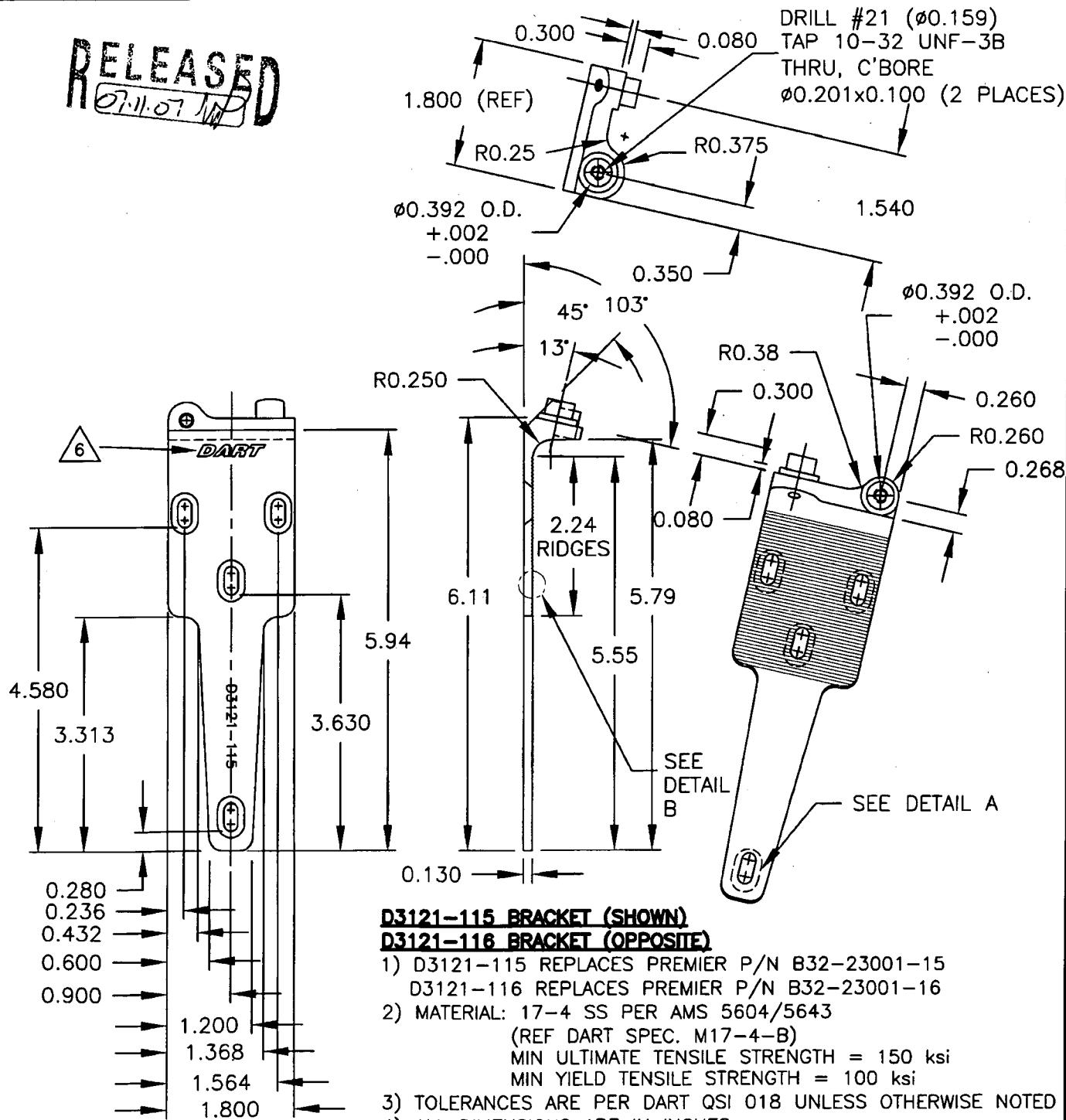
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CHECKED	APPROVED	DRAWING NO.	REV. E
		D3121	SHEET 9 OF 10
DATE	TITLE	SCALE	
07.11.07	BRACKET ASSEMBLY	1:2	

RELEASED
07.11.07 100

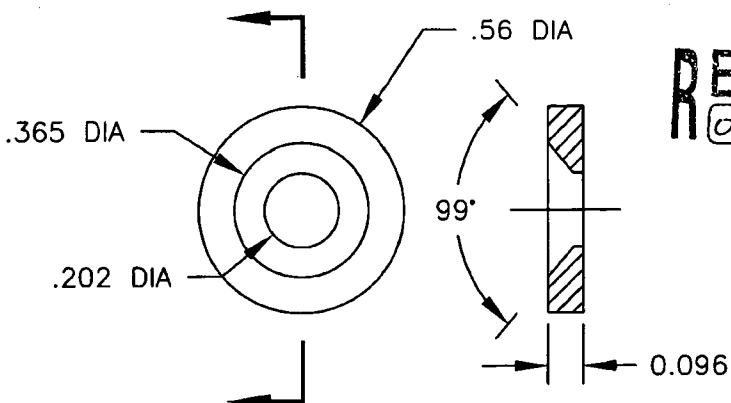


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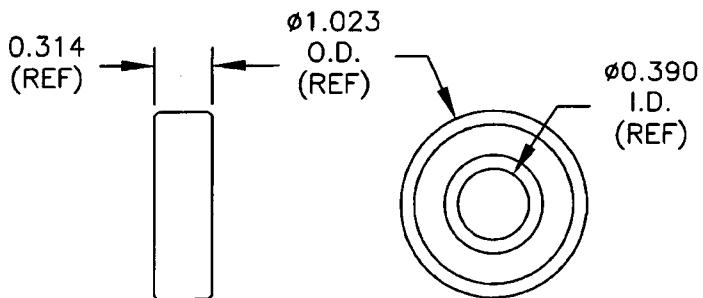


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CHECKED	APPROVED	DRAWING NO. D3121
DATE 07.11.07		REV. E SHEET 10 OF 10 TITLE SCALE 1:1 BRACKET ASSEMBLY



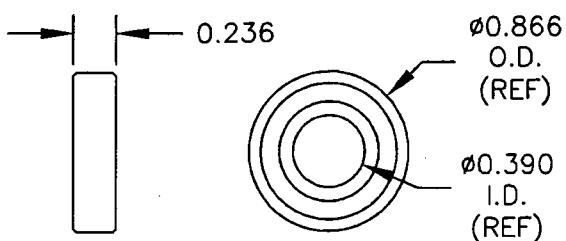
D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



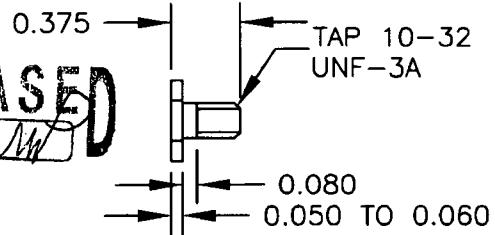
D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM
FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



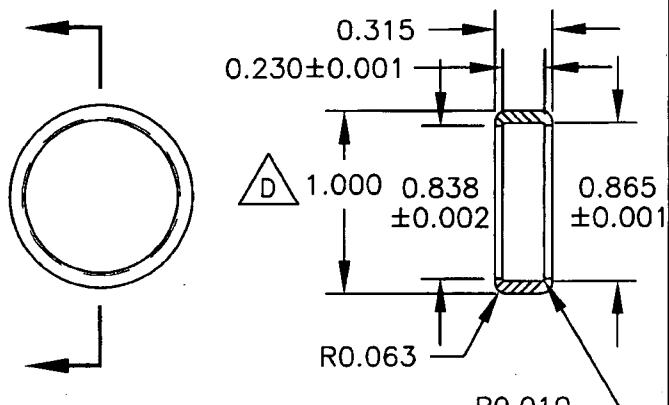
D3121-23 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z
OR KML P/N 6900-2Z
- 2) ALL DIMENSIONS ARE IN INCHES



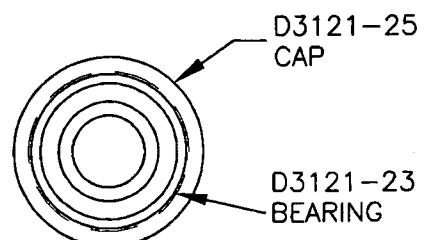
D3121-21 BOLT (SCALE 1:1)

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-25 CAP (SCALE 1:1)

- 1) MATERIAL: DELRIN ROD, Ø1.25 (REF DART SPEC. M-DELRIN-R1.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEMBLY (SCALE 1:1)

DART AEROSPACE LTD		Work Order:	52365
Description: Bracket		Part Number:	D3121-113
Inspection Dwg: D3121	Rev: E		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.080	+/-0.010	.081	✓			
0.300	+/-0.010	.301	✓			
R0.375	+/-0.010	R.375	✓			
1.54	+/-0.030	1.54	✓			
0.350	+/-0.010	.3552	✓			
R0.25	+/-0.030	R.25	✓			
Ø0.392	+0.002/-0.000	Ø.393	✓			
Ø0.201	+0.005/-0.000	Ø.201	✓			
2.540	+/-0.010	2.535	✓			
1.590	+/-0.010	1.585	✓			
0.160	+/-0.010	.155	✓			
0.400	+/-0.010	.393	✓			
1.220	+/-0.010	1.216	✓			
1.600	+/-0.010	1.600	✓			
3.80	+/-0.030	3.80	✓			
1.800	+/-0.010	1.800	✓			
R0.50	+/-0.030	R.50	✓			
0.130	+/-0.010	.128	✓			
3.41	+/-0.030	3.41	✓			
3.65	+/-0.030	3.62	✓			
2.24	+/-0.030	2.21	✓			
45°	+/-0.1°	45°	✓			
R0.25	+/-0.030	R.25	✓			
3.97	+/-0.030	3.97	✓			
R0.38	+/-0.030	R.375	✓			
Ø0.392	+0.002/-0.000	Ø.393	✓			
Ø0.201	+0.005/-0.000	Ø.201	✓			
0.268	+/-0.010	.266	✓			
R0.260	+/-0.010	R.260	✓			
0.080	+/-0.010	.078	✓			
0.300	+/-0.010	.298	✓			
0.381	+/-0.010	.381	✓			
0.201	+/-0.010	.205	✓			
0.580	+/-0.010	.580	✓			